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10/565,668	01/23/2006	Anthony H. Bergman	US 030246	2460
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EXAMINER				
CERULLO, LILIANA P				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/565,668

Applicant(s)

BERGMAN ET AL.

Examiner

LILIANA CERULLO

Art Unit

4163

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-850)
- Paper No(s)/Mail Date 1/23/2006
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/565,659. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are merely broader than or constitute obvious variations of the co-pending application claims. For example, the co-pending claims 1 and 10 recite scanning on a first portion and writing a second portion, and co-pending claim 16 recites an embedded registration code; these limitations are covered by claims 1, 10 and 20 of the instant application.

3. Similar analysis applies to instant dependent claims with respect to co-pending application 10/565,659.
4. Furthermore, claims 1-25 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20 of copending Application No. 10/580,064. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claims are broader than or constitute obvious variations of the co-pending application claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Drawings

The drawings are objected to under 37 CFR 1.83(a) because they fail to show the steps recited with regards to Fig. 5 as described in the specification pg. 16 to 21. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief

description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 2, 4-7, 10, 11, 13, 20, 21 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by Gates et al. in US 6,531,997 (hereinafter Gates).

7. Regarding claim 1, Gates teaches a method of activating an electronic paint (col. 20 lines 53-57), comprising:

8. scanning (addressing of col. 20 lines 53-57 and col. 22 lines 5-14) an electronic-paint registration code ("on" or "off" state of the elements of col. 21 line 59 to col. 22 line

4) on a coded portion (Fig. 4A, elements with an "X") of an electronic paint (letter "A" of Fig. 4A);

9. determining a position (XY coordinates of the elements, e.g.: B8, C3 as taught in col. 21 lines 7-11 and Figs. 4A-B) of an electronic brush (stylus of col. 31 lines 50-51) relative to the coded portion of the electronic paint ("on" or "off" state of the elements in Figs. 4A-B are associated with the XY coordinates being addressed as taught in col. 21 line 59 to col. 22 line 4) based on the scanned electronic-paint registration code ("on" or "off" state of the elements of col. 21 line 59 to col. 22 line 4); and

10. writing a predetermined image (letter "B" of Fig. 4B) on the electronic paint (Figs. 4A-B) based on the determined position (Figs. 4A-B, XY coordinates of the elements; and col. 21 lines 7-63 where it is explained how the image is changed from "A" to "B" by only changing the elements that are different between the two letters) of the electronic brush (stylus of col. 31 lines 50-51).

11. Regarding claim 10, Gates teaches a system for activating an electronic paint (col. 20 lines 53-57), comprising:

12. an electronic brush (the stylus of col. 31 lines 50-60 and electrodes 30 and 40 of Fig. 1) including an electronic-paint activation device (electrodes 30 and 40 of Fig. 1);

13. an electronic-brush scanner (electrodes 30 and 40 of Fig. 1) coupled to the electronic brush (col. 31 lines 50-51, the stylus activates the display elements by passing over the electrodes); and

14. a controller (required for addressing as taught in col. 22 lines 5-14) in electrical communication with the electronic-paint activation device (required to active the different elements as seen in Figs. 4A-B) and the electronic-brush scanner (required to determine what elements need to be changed as seen from Fig. 4A to Fig. 4B), wherein a position of the electronic brush (XY coordinates of Figs. 4A-B) is determined based on an electronic-paint registration code ("on" or "off" state of the elements of col. 21 line 59 to col. 22 line 4) on a coded portion (elements "X" of Fig. 4A) of an electronic paint (Figs. 4A-B) that is scanned by the electronic-brush scanner (electrodes 30 and 40 of Fig. 1) and communicated to the controller (required to active the different elements as seen in Figs. 4A-B), and wherein an electronic-paint write signal is sent from the controller to the electronic-paint activation device (electrodes 30 and 40 of Fig. 1) based on the determined electronic-brush position (Figs. 4A-B , XY coordinates of the elements; and col. 21 lines 7-63 where it is explained how the image is changed from "A" to "B" by only changing the elements that are different between the two letters).

15. Regarding claim 20, Gates teaches an electronic brush (the stylus of col. 31 lines 50-60 and electrodes 30 and 40 of Fig. 1) for activating an electronic paint (col. 8 lines 26-46), comprising:

16. an electronic-brush housing (stylus of col. 31 lines 50-60);

17. an electronic-paint activation device (electrodes 30 and 40 of Fig. 1) coupled to the electronic-brush housing (It is required for the stylus and the electrodes to be coupled in order to activate the electrophoretic elements of col. 31 lines 48-50);

18. an electronic-brush scanner (electrodes 30 and 40 of Fig. 1) coupled to the electronic-brush housing (It is required for the stylus and the electrodes to be coupled in order to activate the electrophoretic elements of col. 31 lines 48-50); and

19. a controller (required for addressing as taught in col. 22 lines 5-14) in electrical communication with the electronic-paint activation device (required to active the different elements as seen in Figs. 4A-B) and the electronic-brush scanner (electrodes 30 and 40 of Fig. 1), wherein a position of the electronic brush (XY coordinates of Figs. 4A-B) is determined based on position signals from the electronic-brush scanner (each element is associated with a coordinate as shown in Figs. 4A-B), and wherein an electronic-paint write signal is sent from the controller to the electronic-paint activation device (electrodes 30 and 40 of Fig. 1) based on the determined electronic-brush position (Figs. 4A-B , XY coordinates of the elements; and col. 21 lines 7-63 where it is explained how the image is changed from "A" to "B" by only changing the elements that are different between the two letters).

20. Regarding claim 2, Gates teaches determining the position of the electronic brush (stylus of col. 31 lines 50-51) comprises determining an electronic-brush location ((XY coordinates of Figs. 4A-B and col. 31 lines 48-51 where the stylus is used to address the electrophoretic display, therefore, the location of the stylus is known as the XY coordinate of the element being addressed).

21. Regarding claim 4, Gates teaches writing the predetermined image (letter "B" of Fig. 4B) on the electronic paint (Figs. 4A-B) comprises reactivating the electronic paint (turning on elements "Z" of Fig. 4B) on the coded portion ("on" or "off" state of the elements of col. 21 line 59 to col. 22 line 4) of the electronic paint (Figs. 4A-B).

22. Regarding claim 5, Gates teaches writing a new electronic-paint registration code (turning "on" an element of col. 21 line 59 to col. 22 line 4) on an uncoded portion (portion that is initially "off" in Fig. 4A, which are the elements "Z" of Fig. 4B as taught in col. 21 line 59 to col. 22 line 14) of the electronic paint (Figs. 4A-B) while writing a portion of the predetermined image (letter "B" of Fig. 4B) on the electronic paint (Figs. 4A-B).

23. Regarding claims 6 and 11, Gates teaches writing the new registration code comprises writing one of a registration mark ("on" or "off" state of the elements of col. 21 line 59 to col. 22 line 4).

24. Regarding claim 7, Gates teaches:

25. receiving an electronic-brush position input (XY coordinates of the elements of Figs. 4A-B and stylus of col. 31 lines 50-51); and

26. writing a new electronic-paint registration code (turning "on" an element of col. 21 line 59 to col. 22 line 4) on an uncoded portion (portion that is initially "off" in Fig. 4A, which are the elements "Z" of Fig. 4B as taught in col. 21 line 59 to col. 22 line 14) of the electronic paint (Figs. 4A-B) based on the electronic-brush position input (Figs. 4A-B ,

XY coordinates of the elements; and col. 21 lines 7-63 where it is explained how the image is changed from "A" to "B" by only changing the elements that are different between the two letters).

27. Regarding claims 13 and 23, Gates teaches the controller (required for controller control of the electrodes) is wired or wirelessly connected to the electronic-paint activation device (electrodes 30 and 40 of Fig. 1) and the electronic-brush scanner (electrodes 30 and 40 of Fig. 1).

28. Regarding claim 21, Gates teaches the electronic-brush scanner (electrodes 30 and 40 of Fig. 1) provides the position signals (XY coordinates of Figs. 4A-B) when the electronic brush (stylus of col. 31 lines 50-51) is stroked across an electronic paint (col. 31 lines 48-51 where the stylus is used to address the electrophoretic display and Figs. 4A-B where an example is shown of letters A and B written on the display, therefore teaching the stylus addressing the display when stroked across the display to write letters) having a coded portion ("on" or "off" state of each element per col. 21 line 59 to col. 22 line 4).

Claim Rejections - 35 USC § 103

29. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

30. Claims 3, 8, 9, 12, 14, 16, 22, 24 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gates et al. in US 6,531,997 in view of Vablais et al. in US 2002/0181744 (hereinafter Vablais).

31. Regarding claims 3, 9, 16 and 25 Gates does not teach a tilt signal. However, Vablais teaches a tilt sensor (Vablais, Fig. 4, sensor 422) coupled to an electronic brush (Vablais, pen of Fig. 4), wherein a tilt signal (Vablais, Fig. 4, signal 410) from the tilt sensor (Vablais, Fig. 4, as shown) is received at a controller (Vablais, Fig. 4, computer 202) to determine a rotation of the electronic brush based on the received tilt signal (Vablais, para. 27).

32. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a tilt sensor (as taught by Vablais) in Gate's method, system and electronic brush for driving electrophoretic displays, in order to obtain the benefit of providing XY coordinates of the pen (Vablais, para. 47 and 49) with an electrophoretic display that is activated only through electrodes in the display and not through a charge in the stylus head (as taught by Gates in col. 31 lines 29-42).

33. Regarding claims 12 and 22, Gates teaches a controller (required for addressing as taught by Gates in col. 22 lines 5-14) for writing with a stylus (Gates, Figs. 4A-B, and col. 31 lines 48-51), but fails to teach the controller embedded in the electronic brush. However, Vablais teaches a controller (Vablais, controller 428 of Fig. 4) embedded in an electronic brush (Vablais, pen of Fig. 4) for writing with a stylus (Vablais, Fig. 3).

Because both Gates and Vablais teach a controller for writing with a stylus, it would have been obvious to one of ordinary skill in the art at the time of the invention, to embed the controller in Gates's electronic brush (as taught by Vablais in Fig. 4) in order to obtain the predictable result of enabling addressing the electrophoretic elements of the display.

34. Regarding claims 8, 14 and 24, Gates does not teach a mechanical position detector. However, Vablais teaches a mechanical position detector (Vablais, tilt sensor of Fig. 4) coupled to the electronic brush (Vablais, pen of Fig. 4) and in electrical communication (Vablais, signal 410 of Fig. 4) with the controller (Vablais, controller 428 of Fig. 4), wherein the mechanical position detector (Vablais, tilt sensor of Fig. 4) provides an electronic-brush position signal to the controller (Vablais, as shown in Fig. 4) based on a movement of the electronic brush (Vablais, para. 27).

35. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a tilt sensor (as taught by Vablais) in Gate's method, system and electronic brush for driving electrophoretic displays, in order to obtain the benefit of providing XY coordinates of the pen (Vablais, para. 47 and 49) with an electrophoretic display that is activated only through electrodes in the display and not through a charge in the stylus head (as taught by Gates in col. 31 lines 29-42).

36. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gates et al. in US 6,531,997 in view of Wang et al. in US 2004/0086181 (hereinafter Wang).

37. Gates does not teach an optical position detector. However, Wang teaches a stylus (Wang, Fig. 6A) which includes an optical position detector (Wang, Fig. 6A, image capturing sensor 611).

38. It would have been obvious to one of ordinary skill in the art at the time of the invention to use an optical scanner (as taught by Wang) in Gates' stylus in order to obtain the benefit of capturing an image to determine the location of a user's interaction with the display (as taught by Wang in para. 31) with an electrophoretic display that is activated only through electrodes in the display and not through a charge in the stylus head (as taught by Gates in col. 31 lines 29-42).

39. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gates et al. in US 6,531,997 in view of Wang et al. in US 2004/0086181, in further view of Vablais et al. in US 2002/0181744.

40. Regarding claim 17, Gates teaches a system for activating an electronic paint (Gates, col. 20 lines 53-57), comprising:

41. means for scanning (Gates, electrodes 30 and 40 of Fig. 1) an electronic-paint registration code (Gates, "on" or "off" state of the elements of col. 21 line 59 to col. 22 line 4) on a coded portion (Gates, elements "X" of Fig. 4A) of an electronic paint (Gates, Figs. 4A-B);

42. means for determining a position (Gates, electrophoretic elements that turn "on" or "off" per col. 21 line 59 to col. 22 line 4) of an electronic brush (Gates, stylus of col. 31 lines 50-51) relative to the coded portion (Gates, elements "X" of Fig. 4A) of the

electronic paint (Gates, Figs. 4A-B) based on the scanned electronic-paint registration code (Gates, "on" or "off" state of the elements of col. 21 line 59 to col. 22 line 4); and

43. means for writing (Gates, stylus of col. 31 lines 50-51) a predetermined image on the electronic paint (Gates, as shown in Figs. 4A-B) based on the determined position of the electronic brush (XY coordinates of the elements a shown in Figs. 4A-B, which are addressed by the stylus as taught in col. 31 lines 48-51).

44. Gates fails to teach the means for scanning to be an optical scanner structure as taught by the instant application disclosure pg. 11 lines 22-25; Gates also fails to teach the means for determining a position to be wheels, trackballs, optical mice or a tilt sensor as taught by the instant application disclosure pg. 12 lines 15-18.

45. However, Vablais teaches a stylus where the means for determining a position is a tilt sensor in a stylus (Vablais, Fig. 4 and as explained above).

46. It would have been obvious to one of ordinary skill in the art at the time of the invention to use a tilt sensor (as taught by Vablais) in Gates' system for driving electrophoretic displays, in order to obtain the benefit of providing XY coordinates of the pen (Vablais, para. 47 and 49) with an electrophoretic display that is activated only through electrodes in the display and not through a charge in the stylus head (as taught by Gates in col. 31 lines 29-42).

47. Furthermore, Wang teaches a stylus (Wang, Fig. 6A) which includes an optical scanner (Wang, Fig. 6A, image capturing sensor 611).

48. It would have been obvious to one of ordinary skill in the art at the time of the invention to use an optical scanner (as taught by Wang) in Vablai's stylus, and use this

modified stylus in Gates' system in order to obtain the benefit of capturing an image to determine the location of a user's interaction with the display (as taught by Wang in para. 31), with an electrophoretic display that is activated only through electrodes in the display and not through a charge in the stylus head (as taught by Gates in col. 31 lines 29-42).

49. Regarding claim 18, Gates teaches means for writing (Gates, stylus of col. 31 lines 50-51) a new electronic-paint registration code (Gates, turning on elements "Z" of Figs. 4B or turning off elements "Y" of Fig. 4A as taught in col. 21 line 59 to col. 22 line 14) on an uncoded portion (Gates, elements "Z" of Fig. 4B) of the electronic paint (Gates, Figs. 4A-B) while writing a portion of the predetermined image (Gates, letter "B" of Fig. 4B) on the electronic paint (Gates, Figs. 4A-B).

50. Regarding claim 19, Gates teaches means for receiving an electronic-brush position input (Gates, a controller is required for addressing as taught in col. 22 lines 5-14); and means for writing (Gates, stylus of col. 31 lines 50-51) a new electronic-paint registration code (Gates, turning on elements "Z" of Figs. 4B or turning off elements "Y" of Fig. 4A as taught in col. 21 line 59 to col. 22 line 14) on an uncoded portion (Gates, elements "Z" of Fig. 4B) of the electronic paint (Gates, Figs. 4A-B) based on the electronic-brush position input (Figs. 4A-B, XY coordinates of the elements; and col. 31 lines 48-51 where the electrophoretic elements are addressed with the stylus, therefore teaching the position of the stylus based on the XY coordinates of the elements).

Conclusion

51. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. DiSanto et al. in US 5,508,720 teach a method of writing on an electrophoretic display using a stylus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LILIANA CERULLO whose telephone number is (571)270-5882. The examiner can normally be reached on Monday to Thursday 8AM-4PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Robinson can be reached on 571-272-2319. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

LC

/Mark A. Robinson/
Supervisory Patent Examiner, Art Unit 4163